

## CLAIMS

1. In a client device coupled to an Internet Protocol (IP) subnet, a method comprising:
  - 5       joining a multicast group;
  - detecting a leave message on the IP subnet, wherein the leave message corresponds to the multicast group; and
  - in response to detecting the leave message, sending a join message on the subnet for the multicast group.
- 10   2. The method of claim 1, wherein the client device comprises at least one of a set-top box (STB), a personal computer (PC), an internet appliance, and a personal digital assistant (PDA).
- 15   3. The method of claim 1, wherein a second client device is coupled to the IP subnet, the second client device sending the leave message.
4. The method of claim 1, wherein the leave message and the join message conform to Internet Group Management Protocol (IGMP).
- 20   5. The method of claim 1, wherein the IP subnet comprises a medium selected from a group consisting of Ethernet, Asynchronous Transfer Mode (ATM), Asymmetrical Digital Subscriber Line (ADSL), Very high bitrate Digital Subscriber Line (VDSL), and wireless.

25

6. The method of claim 1, wherein a router is coupled to the IP subnet, the router configured to operate in a fast-leave mode.

7. The method of claim 1, wherein the multicast group corresponds to a data stream, wherein the data stream comprises at least one of a video and an audio stream.

8. The method of claim 1, further comprising monitoring the IP subnet for leave messages.

9. A client device coupled to an Internet Protocol (IP) subnet comprising:  
joining means for joining a multicast group;  
detecting means for detecting a leave message, wherein the first leave message corresponds to the multicast group; and  
sending means for sending a join message on the subnet for the multicast group in response to detecting the leave message.

10. The client device of claim 9, wherein the leave message and the join message conform to Internet Group Management Protocol (IGMP).

11. The client device of claim 9, further comprising means for monitoring the IP subnet for leave messages.

12. The client device of claim 9, wherein the client device comprises an IGMP host selected from a group consisting of a set-top box (STB), a personal computer (PC), an internet appliance, and a personal digital assistant

(PDA), and wherein the IGMP host comprises the joining means, the detecting means, and the sending means.

13. A multicast data manager stored via at least one computer readable  
5 medium, the data manager comprising:

a first set of instructions for joining a multicast group;

a second set of instructions detecting a leave message, wherein the first  
leave message corresponds to the multicast group; and

a third set of instructions for sending a join message on the subnet for the  
10 multicast group in response to detecting the leave message.

14. The multicast data manager of claim 13, wherein the leave message and the  
join message conform to Internet Group Management Protocol (IGMP).

15. A method for managing multicast data on an Internet Protocol (IP) subnet  
15 having a first and a second client device coupled thereto, the first and  
second client device belonging to a multicast group, the method  
comprising:

the first client device leaving the multicast group;

20 the second client device detecting the first client leaving the multicast  
group; and

in response to detecting, the second client device rejoining the multicast  
group.

16. A first client device coupled to an IP subnet, the IP subnet capable of being coupled to a second client device, the first client device and second client device belonging to a multicast group, the first client device comprising:  
means for detecting the second client leaving the multicast group; and  
5 means for rejoining the multicast group in response to detecting the second client leaving the multicast group.

17. The first client device of claim 16, wherein the IP subnet is capable of being coupled to a router, wherein the router is configured to operate in  
10 fast-leave mode.